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Chinese Herbalism

SUMMARY

Chinese herbalism dates back to 2852 B.C. More than 2,600 herbs and thousands of herbal formulae are used to treat illness. Classical theories of Chinese medicine are integrated with the Taoist philosophy, whereby the universe is composed of two basic forces: a positive one called yang, and a negative one called yin. Illness is thought to occur when there is too much yang (tonification) or too much yin (sedation) in the body and herbal medicines are therefore intended either to tonify or to sedate the body so that balance is restored. Since 1954, some Chinese herbal remedies have been scientifically analyzed and tested. Several have been proven effective in treating a variety of diseases and conditions. (Can Fam Physician 1984; 30:119-122).

SOMMAIRE

L'herboristerie chinoise remonte à l'an 2852 avant Jésus-Christ. Plus de 2,600 herbes et des milliers de produits à base d'herbes sont utilisés dans le traitement des maladies. Les théories classiques de la médecine chinoise sont partie intégrante de la philosophie taoïste par laquelle l'univers est composé de deux forces de base: l'une positive appelée yang, et l'autre négative appelée yin. La maladie surviendrait lorsqu'il y a trop de yang (tonification) ou trop de yin (sédation) dans l'organisme. Les herbes médicinales ont donc pour but de tonifier ou d'apaiser le corps afin d'en rétablir l'équilibre. Depuis 1954, certains remèdes chinois à base d'herbes ont été scientifiquement analysés et évalués. On a prouvé l'efficacité d'un certain nombre d'entre eux dans le traitement d'une variété de conditions et de maladies.

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CHINESE TRADITIONAL medicine is a well-organized system of knowledge accumulated from observation, clinical trials and experiments. This knowledge has been amassed and recorded by both individual medical workers and government institutions. Although classical Chinese medical theories are not based on scientific principles, the effectiveness of many of the old remedies has been proven by modern science. Acupuncture analgesia, for example, has recently been verified to be mediated by the release of endorphin, serotonin and ACTH.[1]

Chinese herbal medicine has been practiced in the East for thousands of years, although it is little known in the West. However, in the East it continues to command the same respect as that given modern medicine.

Many modern drugs are derivatives and extracts of Chinese medicines. For example, ephedrine is isolated from the drug Ma-huang and is used to treat asthma, digitalis is an extract of Mao ti-huang, and coumadin is first extracted from centrifuged leeches; they have been used in China for 1,800 years. There are, in fact, more than 2,600 medicinal materials as well as thousands of formulae and old remedies used in Chinese herbal medicine. Many have yet to undergo scientific investigation and verification. Thus, Chinese herbalism is a goldmine for medical and scientific research.

The History Of Chinese Herbal Medicine[2]

Chinese herbalism dates back to 2852 B.C., and usually is associated with three legendary emperors: Fu Hsi, Shen Nung and Huang Ti. Fu Hsi reigned in 2852 B.C. and is credited with the authorship of the *I Ching* or the Book of Changes, which documented the yin and yang phenomenon. (see "The Traditional Theory of Classical Chinese Medicine", below).

The second emperor, Huang Ti, reigned from 2697-2595 B.C. During his time, the compass, wheeled vehicles, and silk cloth were discovered. He is credited with the penning of *The Yellow Emperor's Classic of Internal Medicine*. This work is the earliest and most important record of Chinese medical knowledge.

The third emperor, Shen Nung, is the father of agriculture and herbal medicine. He is credited with the authorship of the first book of Chinese herbal medicine, called *Shen Nung's Herbal*. According to legend, he would search out and taste different plants every day. It is said that he poisoned himself 70 times by eating these herbs. Although he recovered each time, his face became jaundiced. This is probably the first recorded case of drug-induced hepatitis in human history.

Shen Nung's Herbal later was found to be written in the Han Dynasty (206 B.C. - 200 A.D.). It described 347 herbal medications and recorded the

signs, symptoms and treatments of 170 illnesses. As time passed, numerous medical texts were written. More and more medicinal materials and herbs were added to the discovery through clinical trials and experience.

There are many famous physicians and other medical workers who have made an important contribution to Chinese medicine. Some of them are described below.

Chang Chung Ching (born in 158 A.D.) was the first to distinguish between yin and yang symptoms. He also described in stages the diseases caused by cold, according to the patient's symptoms. He then prescribed herbal decoctions according to the stages of illnesses. His book, called *Treatise and Ailments Attributed to Cold*, has been considered the handbook of Chinese medicine.

Hua To (born in 136 A.D.) was a famous surgeon, acupuncturist, anatomist and physical therapist. He was the first to use anesthetics, antiseptics, hydrotherapy and physical exercise for healing. He invented the five animal exercises (the tiger, stag, bear, monkey and crane), whose great influence is evident in Chinese material arts and Tai-Chi.

Li Shih Chen (1518-1593 A.D.) was the most famous physician in the Ming Dynasty. He reviewed 800 reference books, travelled extensively throughout China and interviewed scholars and medical workers. He devoted 27 years to composing a Chinese 'materia medica', a pharmacopoeia wherein 1,892 medicinal materials in 16 classes and 60 divisions are assembled. He also recorded 1,100 medical prescriptions or formulae for the treatment of various illnesses. This natural science resource book not only classifies vegetable, mineral and animal products, but also contains technological, dietetic, geographical, culinary, philological and philosophical information.

The Traditional Theory Of Classical Chinese Medicine

Western philosophies subscribe to the concept of linear, chronological development. Chinese philosophy stresses that events occur in a series of temporal cycles. Similarly, Chinese medical practitioners consider sickness and its treatment to affect the entire body, although sign and symptom may appear in only one part of the body. The classical theories of Chinese medicine are integrated with the ancient philosophy called 'Taoism'. According to Taoism, the universe is composed of a cosmic field of force in which two basic elements, yin and yang, are perpetual complements in continuous change. Yang, the positive force, corresponds to the sun, day, heat, light, dryness, maleness, life, hypertension, fever, obesity, pain, cough, strong pulse, inflammation, stiff shoulders and constipation. Yin, the negative, corresponds to the moon, night, cold, darkness, water, femaleness, death, hypotension, hypothermia, thinness, weakness, and diarrhea. Yin and yang are dynamically opposed, yet are harmonizing energies in the universe. Accordingly, these two elements may be considered to comprise the balance of man's 'life energy' called chi', and the human body is treated as a small universe. The chi' circulates continuously throughout the body along invisible pathways known as meridians, each of which originates in one of the principal internal organs and then surfaces to run along the outside of the body, sometimes as close as a millimeter or two beneath the skin. Meridians transmit signals of internal illness in major organs to the outside, and can also transmit stimuli back to internal organs from the body surface.

Acupuncture points lie along all these meridians and can be used to affect the internal organs of the body for treating illnesses. The traditional theory is that sickness arises when there is too much yang (over-tonification) or too much yin (over-sedation). Therefore the two forces are not in balance and the chi' does not circulate smoothly along the meridians. Herbal medicines or acupuncture will either tonify or sedate the body to restore the smooth flow of this 'life energy', hence balancing the yang and yin forces and eliminating the illness.

It should be borne in mind that this is not a 'scientific theory' but rather a methodology based on an ancient philosophical system. It reveals the profound difference between Eastern and Western thought.

Generally, herbs can be divided into yin and yang. Yin herbs are used to treat yang symptoms, and yang herbs to treat yin symptoms. For example, the yang herb ginseng, which is tonic and hypertensive, is used to treat low blood pressure and general debility. On the other hand, yin herbs, such as Ta huang (rhubarb) which is a laxative and hypotensive, are used to treat high blood pressure or chronic constipation. Although each herb has its own property, two or more may be combined to treat various diseases.

Thus, herbal medicines have been used to induce sweating, reduction of fever, catharsis, vomiting, hypothermia, regulation of appetite, emotion, sleep, etc. These reactions create conditions in the body conducive to the acceleration of healing. Patients may be healed when their digestion, excretion, emotion and organic function are regulated. Herbal remedies may be used to do this, as may diet control, exercise, rest, nerve stimulation and pain relief by acupuncture, massage and meditation.

Recent Scientific Investigation

After the close of the Ching Dynasty (1912-1949), Chinese medicine began to lose favor among the upper class and government officials, because of the rapid advances of Western medicine and its introduction to China. After the establishment of the People's Republic of China, the government attempted to unite Chinese traditional and Western medicine. Since then, much research and clinical experimentation has been conducted to investigate and promote the use of Chinese herbalism.

Since 1954, analysis and testing of some herbal remedies have been carried out in China. Most of the chemical, pharmacological and clinical results have been published in Chinese medical journals and other scientific publications.

Ginseng (Panax ginseng) is a popular drug. The Chinese believe it can increase lifespan and energy and reduce stress. Clinically, ginseng prevents shock and maintains normal blood pressure in hypotensive patients.[3, 4]

Mao-tung-Ching (the root of the ilex pubescens Hook) dilates the coronary arteries and reduces blood pressure. Successful results were obtained in clinical treatment of angina pectoris.[5] Other herbs, including ligusticum wallichii and carthamus tinctorius were also found to have a therapeutic effect on coronary diseases.[5]

Pin-liang-hua (Adonis amurensis) is very effective for rheumatic heart disease, especially for patients resistant to digitalis. This herb can stimulate the heart, increase contractility and dilate the coronary artery.[6]

Liu Wei di huang tang is a prescription of six herbal medicines. It contains Rehmannia glutinosa, steamed root 25 g, Fruit of Cornus officinalis 12.5 g, Dioscorea batatas; rootbark 9.4 g, Palonia suffruticosa, rootbark 9.4 g, Alisma plantago-aquatica, 9.4 g, Orientale Sarn, tuber 9.4 g and Poria cocos Wolf 9.4 g. It is traditionally used for various kidney diseases and for hypertension. Experimentally, it has increased blood circulation and stimulated kidney function in rats.[7]

Ta Cheng Chi tang is traditionally used to treat acute abdominal problems including acute appendicitis and gallstones. Its ingredients are Rheum tanguticum 9.36 g, Magnolia officinalis 6.24 g, Citrus aurantium 9.36 g and Sodium sulfate 9.36 g. Experiments with guinea pigs have shown that it increases the peristalsis of the gut and common bile duct. This helps to expel the gallstone and the bacterial and toxic materials from the appendix. Clinically, after taking the medication, a significant number of patients recuperated without surgery for appendicitis or gallstones.[8]

Anisodamine is an alkaloid extracted from Anisodus tanuticus or scopolia tangutica Maxim. It has a chemical structure and clinical properties similar to atropine and serves as a cholinergic blocking agent capable of antagonizing arteriole spasm caused by acetylcholine, catecholamine and 5HT. Thus, anisodamine has been applied in conjunction with other therapeutic measures, to treat diseases of acute microcirculatory disturbances including fulminant epidemic meningitis, toxic bacillary, septic shock, severe lobar pneumonia and hemorrhagic enteritis. Good results have been achieved in many studied cases.[9]

Ilex chinensis sims is a traditional medicinal herb used to treat burns. Experiments in rabbits and mice showed that this herb can inhibit the growth of Salmonella typhosa, Shegella flexneri, E. Coli, Proteus vulgaris and staphylacoccus aureus. Clinical results in treating first, second and third degree burns by using herbal medications are very good.[10]

Unsaria rhynchophylla, Corydalis ambigua and *Ginseng* have been shown to effectively reduce and prevent narcotic withdrawal symptoms in both human beings and rats.[11]

The Processing And Administration Of Herbal Medications

Chinese herbs may be collected or cultivated, and most are processed by sorting, washing, slicing, drying and storing. The herbs can then be measured into packages according to prescriptions (see Appendices 1 and 2). The package of herbs is then boiled with a prescribed amount of water for a specified length of time, and the patient drinks the broth. Recently, many Chinese prescriptions have been made available in tablets or powders, which are easier to administer.

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Appendix 1 Common Chinese Herbs

1. For diaphoretic, expectorant, anti-inflammatory, antipyretic, antitussive and antitoxic effects:

Ephedra gerardiana (stalk contains ephedra)
Cinnamonum cassia (bark of cinnamonum)
Asarium heterotropoides (rhizome and root of wild ginger)
Scizonepeta tennuifolia (seeds)
Perilla frutescens (stems and leaves)
Ledebouriella seseloides (root)
Bupleurum falcatum (stalk of thorough wax)
Pueraria lobata (root of hair grass)
Chimicifuga simplex (rhizome)
Mentha arvensis (mint)
Chrysanthemum moriflorium (flower)
Arctium lappa (root of great burdock)

2. For laxative or cathartic and antitoxic effects:

Rheum palmatum (rhizome of rhubarb)
Croton tiglium L. (seeds)
Cannabis sativa (seeds of hemp)
Honey

3. For achieving diuresis:

Akebia quinata (xylem)
Plantago asiatica (plantain)
Pachyma cocos (Indian bread)
Crifola umbellata
Alisma plantago aquatica (rhizome of water plantain)
Aristolochia fanchi (root)
Coix lacryma jobi (grain of Job's tears)

4. For treating inflammations, arthritis, rheumatism and joint pain:

Notoplerygium incisum (rhizome)
Angelica grosseserrata (root)
Attractylodes Chinensis (root)

5. For coughs, sputum expectoration, flu, common colds, and lung diseases:

Forsythia suspensa (fruit of weeping forsythia)
Platycodon grandiflorum (root of ballon flower)
Peucedanum dicursivum (root)
Inula britannica (flower of elecampane)
Prunus armeniaca (apricot kernels)
Mons alba (bark of root)
Fritillaria thundergii (bulk of imperial fritillary)
Pinella ternata (tuber)

6. For regulating digestion, menstruation and excretion:

Citrus aurantium (green fruit of sweet tangerine)
Magnalia officinalis (bark of magnolia)

Sanssurea lappa (root)
Citrus leiocarpa (orange peel)
Cyperus rotundus (root)

7. For regulating blood circulation, increasing the removal of clotted blood and for the formation of new blood:
Carthamus tinctorius (flowers)
Achryanthes fanriei (root)
Paeonia albiflora (peony root)
Prunus perica (peach seeds)
Corydalis ambigua (bulb)
Sophora japonica (flower bud of pagoda tree)
Angelica sinensis (root)
Curcuma aromatic salisb (root and stem)
Salvia miltiorrhiza bge (root)
Sanguisorba officinalis (root)

8. For promoting tonification, longevity and regulation of blood pressure:
Panax ginseng (ginseng)
Glycyrrhiza uralensis (root of licorice)
Attractylodes Chinensis (root)
Dioscorea batatas (root)
Euonymus tricocarpus (barks)
Astragalus monghalicus (root of loccweed)
Angelica acutiloba (root)
Rehmania glutinosa (root)

9. For treating insomnia and for sedation:
Zizyphus jujuba (seeds)
Gastrodia elata (tuber)

10. For promoting sperm formation and for use as a tonic:
Schizandra Chinensis (fruit)
Corus officinalis (drupes of cornelian cherry)

Appendix 2 Chinese Herbal Formulae

There are about 2,600 herbal medications in Chinese medicine, only a handful of which are listed in Appendix 1. However, from many clinical trials and experiences, thousands of formulae can be composed by combining these herbs.

1. For sore throat, tonsillitis, and laryngitis:
Glycyrriza globra (root of licorice) 9.4 g and Platycodon grandiflorum (root of ballon flower) 6.2 g

2. For stomach and duodenal ulcers:
Gardenia jasminoides (fruit) 9.4 g, Coptis sinensis (rhizome of golden thread) 3.1 g, and Glycyrrhiza glabra (root of licorice) 12.5 g

3. For arthritis, rheumatism and gout:
Glycyrrhiza glabra 6.2 g, Attractylodes chinensis (root) 12.5 g, Cinnamonum cassia (bark of cinnamonum) 11 g and Aconitum carmichaeli (root of wolfbane) 1.5 g

4. For neuralgia and headaches:
Cinnamonum 12.5 g, fresh ginger 12.5 g, plum 12.5 g, licorice 6.2 g and peony root 18.7 g

5. For congestion and expectoration:
Ephedra gerardiana 15.6 g, Apricot kernel 15.6 g, Cinnamonum 12.5 g and licorice 4.7 g

6. For abdominal pain caused by gallstones, kidney stones and stomach cramps:
Peony 15.6 g and Cinnamonum 15.6 g

7. For menstrual disorders, anemia, beautification of skin:
Angelica acutilobata 15.6 g, peony 15.6 g, Rehmania glutinosa 15.6 g and Ligusticum Wallichi (rhizome) 15.6 g

8. For paralysis and muscle weakness due to polio, stroke and other neurological diseases:
Angelica aculitoba 12.5 g, Rehmania glutinosa 12.5 g, Achryanthes fanriei 9.4 g, Attractylodes chinensis 9.4 g, Anemarrhena asphodeloides 9.4 g, Peony root 9.4 g, Astragalus mongholicus (root of locoweed) 9.4 g, Euonymus tricocarpus (bark) 6.2 g and Phellodendron amurense (yellow bark) 6.2 g

9. For menopause:
Cinnamonum cassia 4 g, Pachyma cocos 4 g, Prunus persica 4 g, Paeonia albiflora 4 g and Paeonia moutan 4 g

10. For anemia:
Angelia sinensis 3 g, Alisma plantago aquatica (water plantain) 4 g, Attractylodes Chinensis 4 g, Pachyma cocos (Indian bread) 4 g and Ligusticum wallichii 4 g

11. For obesity:
Rheum palmatum (Rhubarb) 3 g, Prunus persica (peach seeds) 5 g, Cinnamonum cassia (cinnamon) 4 g, Glycyrrhiza glabra (licorice) 1.5 g and Na2 SO4 H2O 2 g